

Appl. No. 10/563,849
Reply dated January 10, 2011
Reply to Office Action mailed July 8, 2010

REMARKS

Applicant has amended the title as suggested by the examiner so that the objection to the specification is moot.

In response to the double patenting rejection, Applicant acknowledges the double patenting rejection over US Patent No. 5,534,946 and will respond to it once claims have been allowed in the current patent application.

PRIOR ART REJECTIONS

In response to the rejection of claims 1-13 under 35 USC 102(a) as being anticipated by PCT Publication No. WO 02/058385 to Franzen ("Franzen PCT"), the rejection of claims 1-14 under 35 USC 102(e) as being anticipated by US Patent No. 7,315,331 to Franzen ("Franzen") which is equivalent disclosure to Franzen PCT and the rejection of claim 14 as being unpatentable over Franzen in view of well known prior art (Official Notice), Applicant respectfully traverses the rejections because: 1) each claim elements of claims 1-13 is not found in Franzen for the reasons set forth below; and 2) the claim elements of claim 14 are not disclosed by the combination of Franzen and Official Notice for the reasons set forth below so that the rejections should be withdrawn.

Claims 1-13

The examiner has rejected these claims as being anticipated by Franzen. However, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). See MPEP 2131. In this case, for the reasons set forth below, each claim element is not found in Franzen and the anticipation rejection is improper and should be withdrawn.

Claim 1

Claim 1 recites several claim elements that are not found in Franzen.

First Sample Generation Unit Claim Element

Claim 1 recites "a first sample generation unit generating a first group of samples based on the values of the pixels in the first image, the first motion vector and a first quotient wherein

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the first quotient is equal to a first spatial distance between a first one of the samples of the first group of samples and a second one of the samples of the first group of samples and the first predetermined temporal distance (α)” which is not found in Franzen.

Franzen discloses a system and method for converting video signals in which interpolation is performed between a first image with a first projection factor (similar to the claimed first temporal distance) and a second image with a second projection factor (similar to the claimed second temporal distance) using a filter mask. *See Franzen at Figures 13-14 and col. 11, lines 11-37 and lines 51-57.* In Franzen, during the interpolation process, the system determines an interpolation phase, selects a filter mask (from a set of filter with each filter assigned to a particular interpolation phase) from a filter mask selection system 40 based on the interpolation phase and applies to selected filter mask to perform the interpolation. *See Franzen at Figure 14, reference 40; col. 11, line 51 - col. 12, line 51 and col. 13, lines 3-43.* Thus, Franzen uses the various filter masks to perform the interpolation. In contrast, the claimed system use the first sample generation unit that generates the samples based in part on the first quotient which is not disclosed by Franzen. Therefore, the first sample generation unit is not found in Franzen and the anticipation rejection should be withdrawn.

Second Sample Generation Unit Claim Element

Claim 1 also recites “a second sample generation unit generating a second group of samples based on the values of the pixels in the second image, the second motion vector and a second quotient wherein the second quotient is equal to a second spatial distance (x_2) between a first one of the samples of the second group of samples and a second one of the samples of the second group of samples and the second predetermined temporal distance ($1 - \alpha$)” which is not found in Franzen for similar reasons as discussed above.

The Filter Claim Element

Claim 1 also recites “a filter that ordered statistical filters the samples of the first and the second group to produce a first value of a first pixel of the interpolated image, whereby the first quotient is substantially equal to the second quotient” which is not found in Franzen. Since Franzen does not generate the samples based on the quotients, Franzen also does not have a “filter that ordered statistical filters the samples of the first and the second group to produce a

first value of a first pixel of the interpolated image, whereby the first quotient is substantially equal to the second quotient” as recited in claim 1.

Therefore, the claimed filter is not found in Franzen and the anticipation rejection should be withdrawn.

Summary

Several claim elements are not found in Franzen for the reasons set forth above and the anticipation rejection should be withdrawn.

Claims 2-12

These claims depend from claim 1 and are not anticipated by Franzen for the same reasons as claim 1 above.

Claim 13

Claim 1 recites several claim elements that are not found in Franzen.

Generating First Sample Claim Element

Claim 13 recites “generating a first group of samples based on the values of the pixels in the first image, the first motion vector and a first quotient wherein the first quotient is equal to a first spatial distance between a first one of the samples of the first group of samples and a second one of the samples of the first group of samples and the first predetermined temporal distance (a)” which is not found in Franzen.

Franzen discloses a system and method for converting video signals in which interpolation is performed between a first image with a first projection factor (similar to the claimed first temporal distance) and a second image with a second projection factor (similar to the claimed second temporal distance) using a filter mask. *See Franzen at Figures 13-14 and col. 11, lines 11-37 and lines 51-57.* In Franzen, during the interpolation process, the system determines an interpolation phase, selects a filter mask (from a set of filter with each filter assigned to a particular interpolation phase) from a filter mask selection system 40 based on the interpolation phase and applies to selected filter mask to perform the interpolation. *See Franzen at Figure 14, reference 40; col. 11, line 51- col. 12, line 51 and col. 13, lines 3-43.* Thus, Franzen uses the various filter masks to perform the interpolation. In contrast, the claimed method generates the samples based in part on the first quotient which is not disclosed by

Franzen. Therefore, the generation of the first samples is not found in Franzen and the anticipation rejection should be withdrawn.

Generating Second Sample Claim Element

Claim 13 also recites “generating a second group of samples based on the values of the pixels in the second image, the second motion vector and a second quotient wherein the second quotient is equal to a second spatial distance (x_2) between a first one of the samples of the second group of samples and a second one of the samples of the second group of samples and the second predetermined temporal distance ($1 - \alpha$)” which is not found in Franzen for similar reasons as discussed above.

Ordered Statistical Filtering Claim Element

Claim 13 also recites “ordered statistical filtering of the samples of the first and the second group to produce a first value of a first pixel of the interpolated image whereby the first quotient is substantially equal to the second quotient” which is not found in Franzen. Since Franzen does not generate the samples based on the quotients, Franzen also does not have a “filter that ordered statistical filters the samples of the first and the second group to produce a first value of a first pixel of the interpolated image, whereby the first quotient is substantially equal to the second quotient” as recited in claim 13.

Therefore, the claimed filtering is not found in Franzen and the anticipation rejection should be withdrawn.

Summary

Several claim elements are not found in Franzen for the reasons set forth above and the anticipation rejection should be withdrawn.

Claim 14

This claim was rejected over Franzen in view of Official Notice.

However, Franzen does not disclose the claim elements for the same reason as above. The well known art also does not disclose the claim elements. Therefore, the combination of Franzen and well known prior art does not disclose each claim element and the obviousness rejection of claim 14 should be withdrawn.

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New Claims 15-19

These new claims are not anticipated by Franzen for the same reasons as claims 1-5 above.

CONCLUSION

In view of the above, it is respectfully submitted that Claims 1-14 are allowable over the prior art cited by the Examiner and early allowance of these claims and the application is respectfully requested.

The Examiner is invited to call Applicant's attorney at the number below in order to speed the prosecution of this application.

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 07-1896.

Respectfully submitted,

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